

Amendments to the Claims:

A clean version of the entire set of pending claims (including amendments to the claims, if any) is submitted herewith per 37 CFR § 1.121(c)(3). This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently amended) A medical imaging system comprising:
acquisition means ~~2-intended to acquire~~ for acquiring a volume of ~~3D three-~~
dimensional (3D) digital data ~~3DV~~ comprising at least one object of interest ~~1;~~
means ~~[[4]]~~ for segmenting a region of interest comprising said object of interest ~~[[1]]~~
within said volume ~~3DV~~, of 3D data into a segmented region of interest;
means ~~[[3]]~~ for displaying a ~~2D two-dimensional (2D)~~ representation ~~2DR~~ of said
volume ~~3DV~~ of 3D data and said segmented region of interest ~~RS;~~
means ~~[[5]]~~ for ~~calculating~~ determining a sub-regions map ~~CSR₁-CSR~~ within said
segmented region of interest ~~[[,]]~~; and
correction means ~~6-intended to exclude sub-regions from~~ for correcting the segmented
said region of interest by means of using said sub-regions map ~~CSR₁-CSR~~.
2. (Currently amended) ~~A~~ The medical imaging system as claimed in Claim 1,
~~characterized in that wherein~~ said means ~~[[5]]~~ for ~~calculating a~~ determining the sub-regions
map comprise ~~sub-means 11~~ means for calculating watersheds ~~intended~~ to form a first sub-
regions map ~~CSR₁~~ within the segmented region of interest ~~RS~~.
3. (Currently amended) ~~A~~ The medical imaging system as claimed in Claim 2,
~~characterized in that wherein~~ said means ~~[[5]]~~ for ~~calculating a~~ determining the sub-regions
map further comprise ~~sub-means 10~~ means for calculating a map of distances ~~CD~~, said ~~sub-~~
~~means 11~~ means for calculating watersheds ~~being intended to form~~ forming the first sub-
regions map ~~CSR₁ from~~ based on said map of distances ~~CD~~.

4. (Currently amended) ~~A~~ The medical imaging system as claimed in Claim 2, ~~characterized in that wherein~~ said means for ~~calculating a determining the~~ sub-regions map ~~[[5]] further comprise merging sub-means 12 intended to merge~~ means for merging sub-regions of the first map ~~CSR₁ in order~~ to form a second sub-regions map ~~CSR~~.

5. (Currently amended) ~~A~~ The medical imaging system as claimed in Claim 1, further comprising:

~~characterized in that it comprises~~ control means ~~[[7]] for~~ enabling a user to select the sub-regions to be excluded.

6. (Currently amended) ~~A~~ The medical imaging system as claimed in Claim 1, ~~characterized in that wherein~~ said system is able to update said means for displaying the 2D representation display updates which ~~in order to~~ take into account the effects of corrected segmented region of interest provided by the correction means.

7. (Currently amended) ~~A~~ The medical imaging system as claimed in Claim 1, further comprising:

labeling means ~~[[8]] for~~ labeling the sub-regions map ~~CSR₄, CSR~~ of the segmented region of interest ~~RS~~.

8. (Currently amended) A device for correcting a segmented region ~~RS~~, ~~intended configured~~ to be integrated in a medical imaging system ~~intended to acquire~~ which acquires a volume of data and to segment a region of interest around an object of interest ~~[[1]] within~~ said volume of data, said device comprising:

means ~~[[5]] for~~ calculating a sub-regions map ~~CSR₄, CSR~~ within the segmented region ~~RS~~; and

~~collection~~ correction means ~~6 intended to exclude~~ for excluding sub-regions of said region of interest ~~RS by means of~~ based on said sub-regions map.

9. (Currently amended) ~~A~~ The medical imaging apparatus as claimed in Claim 1,
further comprising:

a medical imager comprising means ~~22~~ for forming ~~[[a]]~~ the volume of 3D digital data
representing an environment including an the object of interest ~~1,~~ a medical imaging system
~~20 as claimed in Claim 1.~~

10. (Currently amended) A method of correcting a segmented region of interest
derived from a volume of three-dimensional (3D) digital data comprising at least one object
of interest, the method comprising:

~~a step of calculating a regions map~~ CSR_1, CSR ~~within the segmented region~~ RS_i ; ~~and~~
~~a correction step intended to exclude~~ excluding ~~sub-regions of the segmented region~~
 RS ~~by means of~~ based on ~~the sub-regions map~~ CSR_1, CSR .

11. (Canceled)